LIBBY/HUNGRY HORSE DAMS WILDLIFE MITIGATION

MONTANA WILDLIFE HABITAT PROTECTION

Final Report
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ABSTRACT

The purpose of this project was to develop and obtain information necessary to evaluate and undertake specific wildlife habitat protection/enhancement actions in northwest Montana as outlined in the Columbia River Basin Fish and Wildlife Program. Three waterfowl projects were evaluated between September 1989 and June 1990.

Weaver's Slough project involved the proposed acquisition of 200 acres of irrigated farmland and a donated conservation easement on an additional 213 acres. The proposal included enhancement of the agricultural lands by conversion to upland nesting cover. This project was rated the lowest priority based on limited potential for enhancement and no further action was pursued.

The Crow Creek Ranch project involved the proposed acquisition of approximately 1830 acres of grazing and dryland farming lands. The intent would be to restore drained potholes and provide adjacent upland nesting cover to increase waterfowl production. This project received the highest rating based on the immediate threat of subdivision, the opportunity to restore degraded wetlands, and the overall benefits to numerous species besides waterfowl. Ducks Unlimited was not able to participate as a cooperator on this project due to the jurisdiction concerns between State and tribal ownership. The USFWS ultimately acquired 1,550 acres of this proposed project. No mitigation funds were used.

The Ashley Creek project involved acquisition of 870 acres adjacent to the Smith Lake Waterfowl Production Area. The primary goal was to create approximately 470 acres of wetland habitat with dikes and subimpoundments. This project was rated second in priority due to the lesser threat of loss. A feasibility analysis was completed by Ducks Unlimited based on a concept design. Although adequate water was available for the project, soil testing indicated that the organic soils adjacent to the creek would not support the necessary dikes. The project was determined not feasible for mitigation implementation.

Although no waterfowl/wetland projects were implemented using mitigation funds, 1,550 acres were protected based on work done under this project.

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INTRODUCTION

This project was undertaken pursuant to Measure 1003(b) (4) - Table 4 (Hungry Horse and Libby Dams) of the Columbian River Basin Fish and Wildlife Program. Table 4 identifies specific program goals to mitigate wildlife and habitat losses attributed to the construction of Libby and Hungry Horse dams (NWPPC 1987). Program goals for the Habitat Protection project were to:

1. Protect and/or enhance 4,564 acres of wetland habitat in the Flathead Valley;

2. Protect 2,262 acres of prairie habitat within the vicinity of the Tobacco Plains for Columbian sharp-tailed grouse;

3. Protect 8,590 acres of riparian habitat and travel corridors in northwestern Montana for grizzly and black bears; and,

4. Negotiate cooperative agreements with state and federal agencies and private landholders to protect 11,050 acres of selected old-growth stands for terrestrial furbearers.

The purpose of this project was to develop and obtain information necessary to evaluate and undertake specific wildlife habitat protection/enhancement actions in northwest Montana as outlined in the Fish and Wildlife Program. Activities include obtaining information needed to undertake specific conservation easements, fee title acquisitions, and cooperative agreements, and providing local coordination. These activities are the responsibility of the Northwest Montana Wildlife Mitigation Habitat Protection Project (BPA #89-023 and FWP #51031).

This report summarizes events leading up to three waterfowl mitigation projects and specific actions undertaken between September 1989 through June 1990 to develop these projects.

Background

Prior to development of individual projects, general implementation strategies and administrative processes for the Wildlife Habitat Protection Project were identified during the Advance Design phase (BPA #87-60, FWP #51091) (Wood 1990). This project was initiated in 1987 to identify priority sites, develop interagency coordination and define the protection process. Completion of the advance design phase provided a framework for a cost-effective program that adequately mitigates wildlife losses and complements on-going management programs.

Technical committees were established to provide biological expertise on individual species programs to ensure biologically sound mitigation projects. Three committees were established: the Waterfowl/Wetland Technical Committee, the Grizzly bear/Black bear

Technical Committee, and the Columbian Sharp-tailed Grouse Technical Committee. At the next level, the Habitat Protection Advisory Committee was established to provide a broader scope of public review on individual projects and general habitat protection policies.

During the Advance Design phase, two projects (Rocky Bar 0 Ranch and Copper Creek) to protect grizzly bear and black bear habitat were completed as pilot projects. With their completion, we focused efforts on competing a waterfowl/wetland project.

WATERFOWL/WETLAND PROGRAM

Goal and Priorities

Hungry Horse and Libby dams together inundated approximately 15,758 acres of waterfowl habitat including ponds, marshes, islands, and riparian tree/shrub communities. The mitigation objective for both hydroelectric facilities was adjusted to protection of 4,564 acres of prime waterfowl habitat based on conversion of low to medium quality habitat losses to prime wetland habitat.

In order to be consistent with current objectives of agencies responsible for waterfowl management, the primary mitigation objective is to increase waterfowl production. The North American Waterfowl Management Plan (1986) adopted by the USFWS and the Canadian Wildlife Service identified the need for immediate actions to offset the substantial decline in waterfowl numbers throughout Canada and the United States. Loss of habitat was identified as the number one reason for the observed reduction in waterfowl numbers.

The Waterfowl Technical Committee supported the approach for mitigation that involves restoration or creation of wetlands in order to achieve a "no-net loss" of wetland habitat. The Committee identified the following priorities (Wood 1990):

High Priority - existing important waterfowl habitat that currently provides nesting and brood rearing habitat and is seriously threatened with loss or degradation. Not protecting these sites would result in an overall loss to the waterfowl population. Threats to the sites may be related to increased human development, loss of available water, or other factors that diminish the wetland or upland nesting values. In general, these sites are found on privately owned lands.

Medium Priority - enhancing marginally productive areas to increase waterfowl production. These sites may include areas that currently support limited duck nesting but with enhancement would provide additional nesting opportunities. These sites may occur on publicly or privately owned land.

Low Priority - protecting existing high quality wetlands or riparian areas with limited enhancement potential and a low risk of habitat loss.

Project Descriptions

Three waterfowl projects were considered for implementation. All three projects were proposed by the USFWS based on their priority wetland acquisition list (1987,on file USFWS Creston office). If any or all three of the projects were acquired with mitigation

funds, the USFWS agreed to accept long-term management responsibility by including the lands in their Waterfowl Production Area wetland district.

The Weaver's Slough project involved the proposed acquisition of 200 acres of irrigated farmland adjacent to the slough. The landowner also would donate a conservation easement on 213 acres adjacent to the proposed acquisition. The slough currently provides nesting and brood rearing habitat for waterfowl. The upland acres provide only limited nesting habitat because of the agricultural uses. Upland nesting habitat would be enhanced by converting most of the cropland into dense nesting cover.

The Crow Creek Ranch project involved the fee acquisition of approximately 1830 acres in two parcels (Johnson tracts-1350 acres and Bauer tract-480 acres) in Lake County. Only 160 acres of wetlands were listed on the USFWS priority acquisition list, however, field reviews of the property indicated that a larger project would be more effective. Both the Johnson and Bauer tracts contain drained wetland from years of land use practices to increase the agricultural production. The intent of the project would be to restore drained potholes and provide adjacent upland nesting cover to increase waterfowl production. The Johnson tracts were particularly vulnerable to loss through subdivision due to the landowners active marketing of the property.

The Ashley Creek project involved fee acquisition of approximately 870 acres in 3 parcels (Hanson tracts-400 acres, Hock tract-30 acres, and Hyrup tracts-200 acres) in Flathead County. The project area includes subirrigated meadows that are seasonally flooded adjacent to the existing Smith Lake Waterfowl Production Area. The primary goal of this project was to create approximately 470 acres of wetland habitat with dikes and subimpoundments and provide upland nesting habitat on the remaining acreage.

Project Review

The projects were reviewed and prioritized by the Waterfowl/Wetland Technical Committee in April 1988. Their review indicated that both the Ashley Creek and Crow Creek projects were considered appropriate mitigation projects based on biological merit. The Weaver Slough project was rated lowest priority due to limited enhancement potential. The committee recommended pursuing the Crow Creek project as the first priority based on the following reasons:

1. The Johnson tracts were seriously threatened by subdivision because of the intense efforts by the landowner to market the property. Development of this ranch would result in the loss of existing waterfowl habitat that contributes to the overall benefits of Nine Pipes Waterfowl Production area.

2. Greater multi-species benefits would occur on the Crow Creek project than the Ashley Creek project. The diverse wetland complexes and upland acres

would provide habitat for numerous upland game birds and non-game species.

The wetland proposals were reviewed by the Habitat Protection Advisory Committee in November 1988. This committee recommended pursuing the Ashley Creek project as the first priority if both the Crow Creek Ranch and the Ashley Creek projects provided similar biological benefits. They based their recommendation on the following rationale:

1. The Ashley Creek project involves a greater degree of cooperation with other agencies and organizations.

2. The Ashley Creek project is closer to the impact area (Hungry Horse Dam).

3. The Ashley Creek project is highly visible, would provide much public recreation, and would be an excellent first project for the mitigation program.

4. Committee members also expressed a concern regarding long-term management jurisdiction on lands acquired within the tribal reservation boundaries.

The MDFWP decided to pursue evaluation of both the Ashley Creek and Crow Creek Ranch projects.

PROJECT DEVELOPMENT

Weaver Slough

This site was field reviewed by Ducks Unlimited staff in July 1988. They recognized the wetland values existing on this project but reported limited enhancement opportunities to increase the wetland values.

The property was appraised in February 1988 by the landowner for $1450/acre. Negotiations with the landowner indicated a willingness to sell 200 acres for the appraised value ($290,000) and donate a conservation easement restricting further subdivision on the remaining 213 acres. However, the sale would be contingent on public access restrictions on the fee title lands.

This project was not further developed because of it's ranking as third priority. The lower ranking was based on the limited opportunities for enhancement, concerns about predation, and the lack of public access.

Crow Creek Ranch

A field review of this project was conducted by Ducks Unlimited staff in July 1988. They reported excellent potential for restoration of drained potholes by plugging ditches. However, they stated that it would be unlikely for Ducks Unlimited to participate as a cooperator on this project because of the tribal jurisdiction questions. At issue was the fact that the general public would be required to obtain an additional license from the tribes to hunt the properties.

A proposal was submitted to Bonneville Power Administration (BPA) in January 1989 requesting mitigation funds to purchase all or portions of the Crow Creek Ranch based on the recommendations of both the Technical and Advisory committees(Appendix A). The proposal includes project description and maps, biological benefits, potential cooperators, and estimated costs. Total cost for the entire package was estimated at $700,000. The USFWS pledged $100,000 toward this acquisition.

BPA completed a market evaluation on the project in April 1989 for budget planning. The project proposal was split in to a "core project area" including the minimum acreage and an "expanded project area" including the maximum acreage. The 760 acre "core area" was estimated at $418,000. The additional 480 acres parcel for the "expanded area" was valued at $264,000. The total purchase estimate was $682,000 for the proposed project.

Ashley Creek Project

Ducks Unlimited biologists and engineers completed a preliminary field review of this project in July 1988. Their initial evaluation indicated an excellent potential for enhancing waterfowl production in the Ashley Creek area (DU letter, Aug 10, 1988). Based on a preliminary project design, DU estimated that impoundments would create between 350-400 acres of wetlands at a cost of $500,000 (DU letter, November 18, 1988). Because of the complexity and the cost of the development project they recommended completing preliminary engineering and project design analysis before the State or BPA acquire the properties.

A proposal was submitted to BPA in January 1989 requesting mitigation funds to acquire all or portions of the proposed Ashley Creek project (Appendix B). The project involved acquisition of approximately 870 acres in three parcels under separate ownership. The wet meadows would be enhanced by creating four ponds by construction of dikes. Island development would provide secure nesting habitat and the open water formed by the dikes would provide pair and brood rearing habitat.

BPA completed a market evaluation on the project in April 1989 for budget planning. The tracts were valued as follows:

1. Hanson - 400 acres for $355,000
2. Hock - 30 acres for $ 24,000
3. Hyrup - 200 acres for $160,000

The total cost of acquiring all parcels at fair market value was estimated at $539,000. Based on the estimated cost of acquiring the parcels and development costs, Ducks Unlimited supported continued evaluation of this project since the costs were still below their cost justification level (DU letter, July 10, 1989).

A second field review and meeting was held with DU, BPA and MDFWP to discuss this project. Because of the cost to acquire and develop this project, a feasibility analysis was pursued. In September 1989, we contracted with Ducks Unlimited to complete preliminary engineering analysis. The contract award was for $12,716. The USFWS was responsible for determining the water rights and hydrological needs for the project.

In September 1989, MDFWP submitted a letter to BPA supporting their efforts to acquire the properties for the Ashley Creek project contingent upon project feasibility (Appendix C).

Feasibility Analysis of the Ashley Creek Project

The water rights and hydrology analysis was completed by the USFWS in November 1989 (on file Region 1 headquarters, MDFWP Kalispell). The existing water rights were adequate to maintain the proposed ponds and the hydrology analysis indicated that high spring runoff flows would be sufficient to fill and maintain the ponds. The water rights would have to be changed from irrigation to fish and wildlife uses.

Ducks Unlimited hired two local (Missoula) firms to complete field work. Soils investigations were to establish the engineering parameters of the subsurface materials that would affect the design and construction of a series of proposed earthen dikes. Soil sampling and analysis was completed by GMT Consultants, Inc. The preliminary field topographic surveys and dike centerline placement was completed by Stensatler, Druyvestein and Associates. Field work was initiated in November 1989 and completed in January 1990. A final soils report was submitted on February 15, 1990 (on file Region 1 headquarters, MDFWP Kalispell).

Topographic surveys and locations for the four proposed dikes were completed by GMT Consultants in December 1989. The survey also provided site locations for soil sampling. Maps are on file Region 1 headquarters, MDFWP Kalispell.

Results of the soils investigations indicated the subsurface soils along the marshy portion of the meadows adjacent to Ashley Creek consisted of approximately 1 ft of topsoil and between 7 and 10 feet of organic, saturated silt (peat). Soils farther away from the creek bottom and marsh area contained sandy silt and clay. The report indicated that the soils adjacent to the creek were highly compressible and thus too soft to support the dike structures. The report indicated that the bearing capacity of the site could be increased by using a construction fabric beneath the dike materials. The final report in on file at Region 1 headquarters, MDFWP Kalispell.

PROJECT ACTIONS

Weaver Slough

No further action was taken on the Weaver Slough project. The property was eventually sold as a private hunting club (D. Heine pers. commun.)

Crow Creek Ranch

Portions of the proposed Crow Creek Ranch project were acquired by the USFWS in October 1989. Approximately 15.50 acres of the Johnson tracts were acquired for $710,000 with USFWS acquisition funds. This area is currently being managed as a Waterfowl Production Area within the Nine Pipes National Wildlife Refuge district.

Ashley Creek Project

We received a letter from Ducks Unlimited, dated March 8, 1990, which stated that construction of the Ashley Creek impoundment system was not economically feasible according to DU justification standards, therefore DU would not participate as a cooperator on this project. Materials and construction costs due to the highly organic soils made the project cost prohibitive.

Without the cooperation of Ducks Unlimited, the Ashley Creek project was not feasible as a mitigation project. No further action on this project was warranted.

SUMMARY

Three waterfowl/wetland projects were reviewed during the period September 1989 through June 1990. One project, the Weaver's Slough project, was dropped because of its ranking as low priority and subsequent sale for a shooting preserve. Portions (1550 acres) of the Crow Creek Ranch project were acquired by the U.S. Fish and Wildlife Service as a Waterfowl Production Area. The Ashley Creek project was determined not feasible based on soils analysis. The proposed diking structures and subimpoundments were not feasible due to the organic soils present in the project area.

Although no waterfowl/wetland projects were implemented using mitigation funds, 1,550 acres were protected based on the work done under this project.

REFERENCES

Northwest Power Plating Council. 1987. Columbian River basin fish and wildlife program. Portland, OR. 246 pp.

Wood, M.A. 1990. Northwest Montana wildlife mitigation - habitat protection. Advance design. Final Rept., Mont. Dept. Fish, Wildlife and Parks, Region 1 headquarters, Kalispell. 24 pp.

U. S. Department of the Interior, Canadian Wildlife Service, and Environment Canada. 1986. North American Waterfowl Management Plan. 19 pp.

APPENDIX A

The Crow Creek Proposal submitted to Bonneville Power Administration

A Prospectus for

THE CROW CREEK RANCH PROJECT

Submitted to

James Meyer, PJ
Bonneville Power Administration
Portland, Oregon

by

Marilyn Wood
Project Biologist
Montana Dept. Fish, Wildlife and Parks
Kalispell, Montana

January 20, 1989

lNTRODUCTION

The Northwest Power Planning Council's Fish and Wildlife Program (1987) outlined specific mitigation objectives for wildlife losses at Hungry Horse and Libby dams. The Easement/Acquisition project was established to protect or enhance habitat for several species through conservation easements and fee title acquisitions. Completion of this proposed project would help achieve the overall objective of protecting 4,564 acres of prime wetland habitat for waterfowl.

Potential projects for the Easement/Acquistion project are identified through review by the Waterfowl Technical Committee--a multi-agency advisory board. Projects which involve enhancement of potentially productive habitat for waterfowl that are threatened by subdivision development are given the highest priority.

This proposed project involves the acquisition of two parcels of privately owned land that currently support only limited duck nesting. The acquisitions would provide an opportunity to manage large blocks of habitat that could be enhanced with minimal development to increase duck production. This project is consistent with current efforts by state and federal agencies and private organizations to promote increases in breeding duck populations as called for in the North American Waterfowl Management Plan.

PROJECT AREA DESCRIPTION

The project area lies in the Mission Valley approximately three miles from Ronan, Lake County, Montana (Fig. 1). Several federally protected wildlife refuges and waterfowl production areas are in the immediate vicinity of the proposed project. The Nine Pipes Wildlife Refuge and State Management Areas are located within one mile.

The project area is characterized by rolling topography shaped by glaciation. Glacial action has 'resulted in numerous basins similar to the prairie pothole region in North Dakota. No natural streams occur within the project area, but a small portion of the project is within the Flathead Irrigation Project district and is serviced by a feeder canal. The Irrigation Project is owned by the Bureau of Indian Affairs, but is currently managed by the Bureau of Reclamation.

Land within the proposed project is privately owned by two separate landowners (Fig. 2). Current land use practices include livestock grazing, hay harvesting, and wheat/barley farming. years of livestock grazing and crop farming have resulted in degradation of the historically diverse and abundant wetland complcxcs. Evidence of extensive pothole draining exists over much of the project area.

Both seasonal and deeper, permanent ponds occur on the project ares. Existing levels of waterfowl production are unknown, but it is assumed that the remaining temporary wetlands provide breeding pair habitat and the deeper ponds provide important brood-rearing habitat. Review of

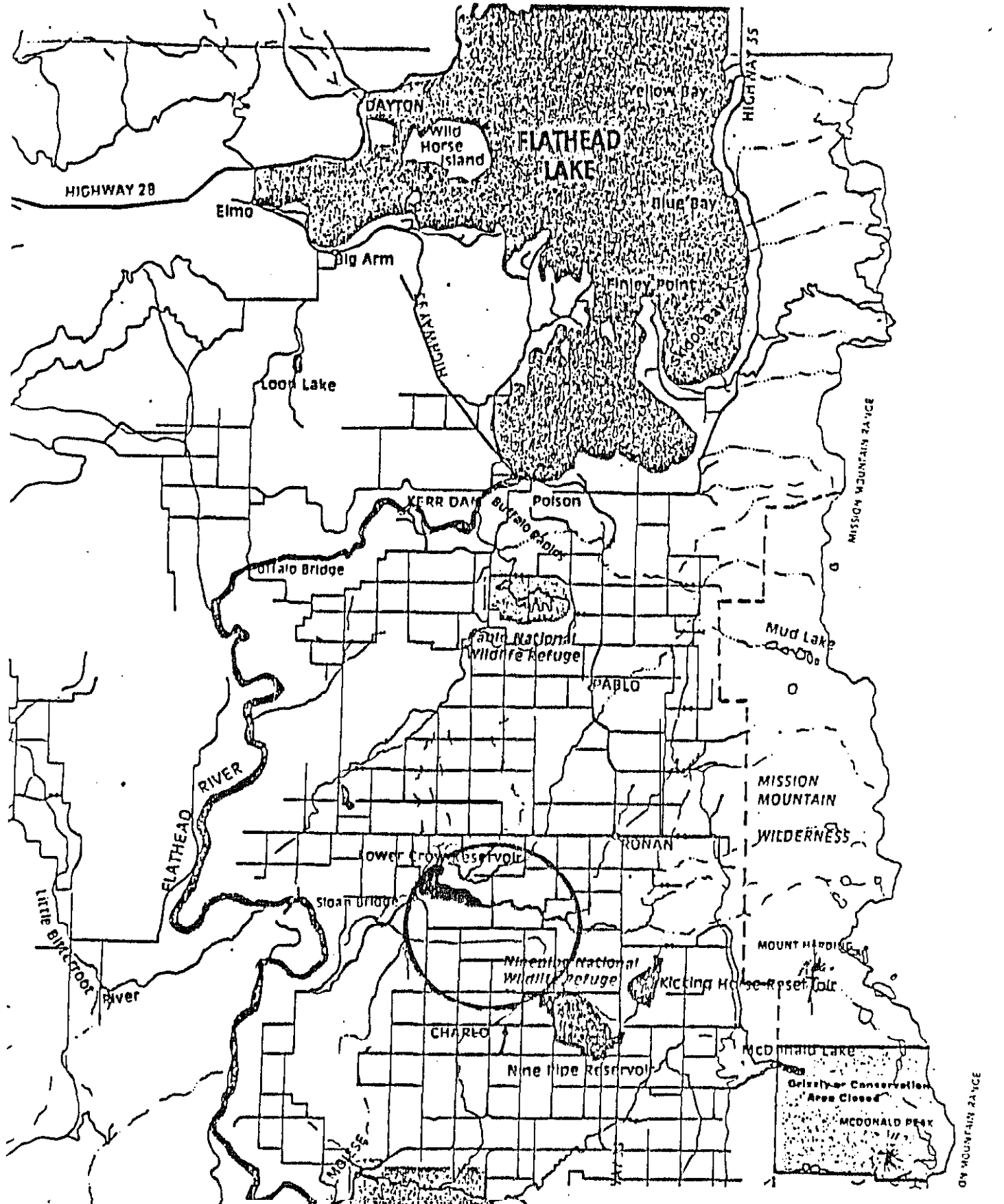

Figure 1. Location of the crow Creek Ranch Project.

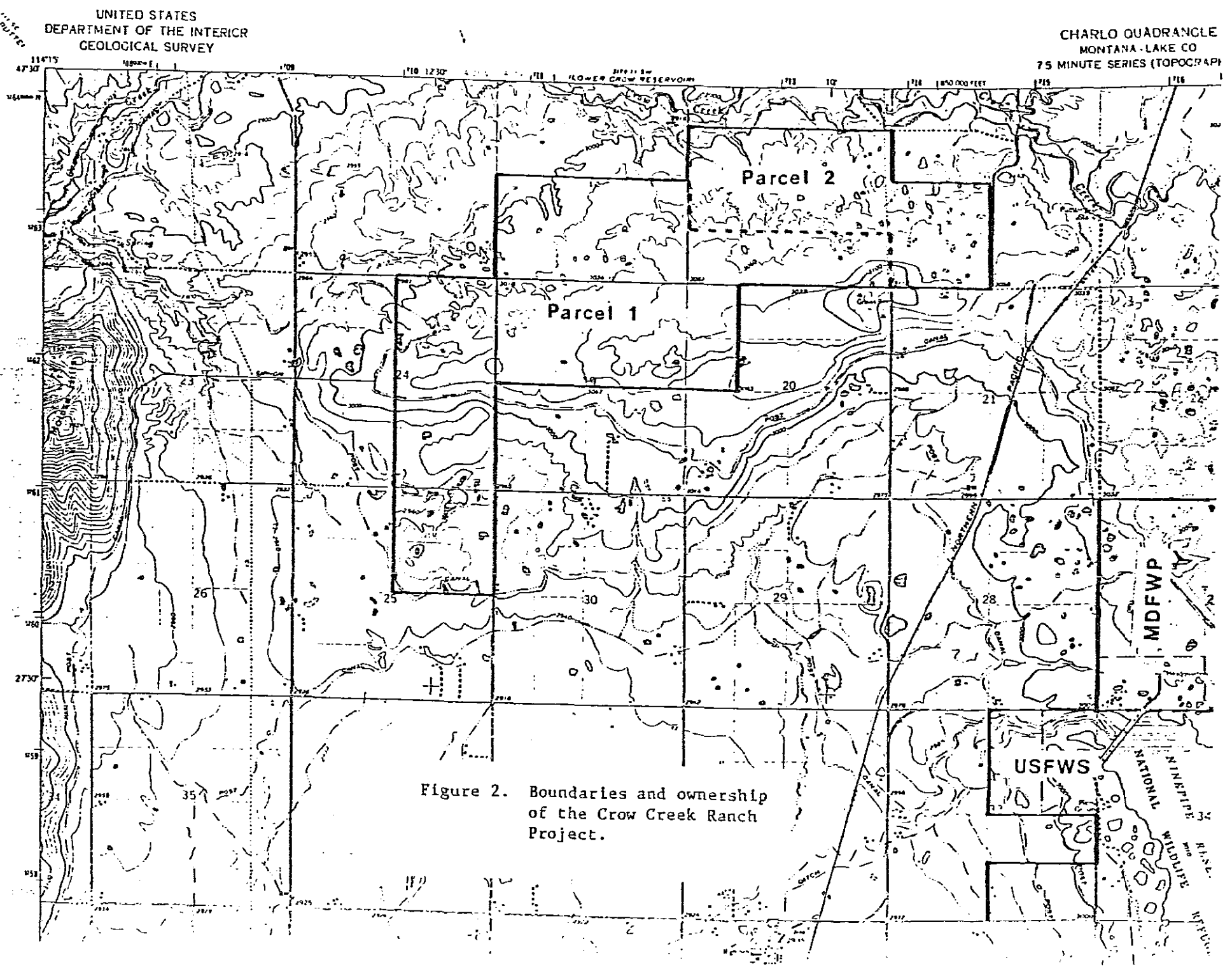

Figure 2. Boundaries and ownership of the Crow Creek Ranch Project.

historic photos (1937, 1947, 1954) reveal the abundance of seasonal potholes that existed prior to drainage beginning in 1948.

PROJECT PROPOSAl

The objective of this project would be to enhance waterfowl production on approximately 1,830 acres. Attainment of the goal is dependent upon purchase of two parcels of land from two landowners. Both are willing sellers. Primary goal is to acquire the key parcels which would provide a large block of habitat for waterfowl management:

Project Area Summary –

Parcel 1	J. Johnson	1,350 acres
Parcel 2	M. Bauer	480 acres
	Total	1830 acres

Enhancement of waterfowl production could be achieved by plugging drained wetlands with minimal development costs, Development of deeper, more permanent ponds for brood-rearing would provide habitat for the increased number of breeding pairs.

BIOLOGICAL BENEFITS

Waterfowl Production – Completion of this project is expected to increase waterfowl production by providing additional breeding pair habitat (seasonal potholes and improved nesting cover). Estimates from aerial photos indicated that out of 244 wetland basins, approximately 25 percent are currently available for breeding duck pairs. With limited development, the remaining basins would provide additional breeding pair habitat by capturing and holding spring runoff. Development of deeper, more permanent ponds would, be necessary to provide brood-rearing habitat for these additional pairs. Waterfowl species expected to benefit include mallards, gadwall, teal, and redheads.

To develop an estimate of waterfowl production, I considered the number of breeding pairs expected to be produced on 244 wetland acres, the estimated hen nest' success rate, and the average brood size. All estimations were based on figures provided by the USFWS biologists at Nine Pipes National Bison range.

Breeding pair estimates:

Divers	.5pr/ac	=	122 pairs
Dabblers	2 pr / ac	=	488 pairs
	Total		610 pairs

X hen nest success rate 35% = 214 successful nests

X 5.2 average brood size = 1,113 ducklings produced

To develop an estimate of production over a ten year period, I estimated that spring rains or runoff would be adequate to fill the seasonal potholes six years out of ten (some production would occur in the other four years):

1,113 ducklings X 6 years = 6,678 ducklings produced

Other species benefits--Development of additional wetlands and enhancement of currently heavily overgrazed uplands would provide excellent habitat for numerous nongame species and upland game birds.

Other benefits--The Nine Pipes area provides the most intensively used waterfowl and upland game bird hunting in western Montana. It is expected that this project under public ownership will also receive high recreational use by the hunting public.

MANAGEMENT RRSPONSIBILITIES/COOPERATIVE EFFORTS

The USPWS will manage the property as a Waterfowl Production Area. They will also assume all future operation and management costs. In addition, they can provide $100,000 towards acquistion of this project.

The Confederated Salish and Kootenai Tribes, through Parke Moore (wildlife program manager), has offered to provide some financial support for enhancement projects (up to $50,000). The Tribes will also be able to provide machinery and labor to complete enhancement projects.

ESTIMATED COSTS

Fee title acquistions - (portions of M. Bauer's property were recently appraised for crop insurance at $375/acre for dryland agricultural lands. Irrigated crop lands will appraise higher) estimates:

160 acres irrigated cropland @ $500/ac =	$ 80,000.00
1670 acres dryland @'$375 =	626,250.00
Total =	$706,250.00
- USFWS committment	$100,000.00
= BPA committmrnt	$606,250.00

MANAGEMENT CONCERNS

Water Project Issue--portions of the project (160 acres) are irrigated by the BIA Water Project canals. An annual per acre water charge is assessed (approx $16/ac). Water use for filling waterfowl ponds is not an approved use. It has been allowed on state and federal management areas but is not formally recognized use. It will be necessary to assure that those uses are allowed in the future.

Long term Management Concerns--because the project lies within the tribal reservation boundaries, we feel it is necessary to require a formal agreement between the BIA, CSKT, USFWS, and MDFWP that any lands purchased through this program will be managed for wildlife uses in perpetuity.

Permits Required--in addition to the regular permits required to complete enhancement activities, two tribal permits are also required.

APPENDIX B

The Ashley Creek proposal submitted to Bonneville Power Administration

A Prospectus for

TIE ASHLEY CREEK (SMITH LAKE ADDITION) PROJECT

Submitted to

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by

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Montana Dept. Fish, Wildlife and Parks
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January 20, 1989

INTRODUCTION

The Northwest Power Planning' Council's Fish and Wildlife Program (1987) outlined specific mitigation objectives for wildlife losses at Hungry Horse and Libby dams. The Easement/Acquisition Project was established to protect or enhance habitat through conservation easements and fee title acquisitions. Completion of this proposed project would help achieve the overall objective of protecting 4,564 acres of prime wetland habitat for waterfowl.

Potential projects for the Easement/Acquisition Project are identified through review by the Waterfowl Technical Committee -- a multi-agency advisory board. Projects which involve enhancement of marginal habitat to increase waterfowl production are given the highest priority. This proposed project involves the acquisition of subirrigated hay meadows that currently support limited duck nesting and the development of secure nesting and brood-rearing habitat by extensive diking for wetlands. This project is consistent with current efforts by state and federal agencies and private organizations to promote increases in the breeding duck populations as called for in the North American Waterfowl Management Plan.

PROJECT DESCRIPTION

The project area includes approximately 870 acres in Smith Valley, 11 miles southwest of Kalispell, Montana (Fig. 1). The project area is characterized by a broad, flat valley which supports subirrigated meadows and narrow bands of riparian shrubs. Adjacent uplands support coniferous forests of Douglas fir and larch. Land uses within the project area include livestock grazing, hay harvesting, and waterfowl production.

Ashley Creek is the primary stream in the project area. Two tributaries, Truman Creek and Mount Creek, flow into the main stream. Ashley Creek flows are regulated upstream from the project area by a control structure on Ashley Creek. Montana Dept. Fish, Wildlife and Parks has priority water rights. on Ashley Creek to protect in-stream flows for spawning rainbow trout. Other water rights holders divert water for irrigation purposes. High spring flows from Truman and Mount creeks generally flow through the system without being diverted.

Land within the project area is approximately 30 percent publicly owned and 70 percent privately owned (Fig. 2). Private lands critical to project completion include properties owned by A. Hanson, J. Hyrup and R. Hock. All landowners have been contacted and are willing sellers. The public lands are managed by the U.S. Fish and Wildlife Service as part of the Smith Lake Waterfowl Production Area. The proposed project will be immediately upstream from the Waterfowl Production Area.

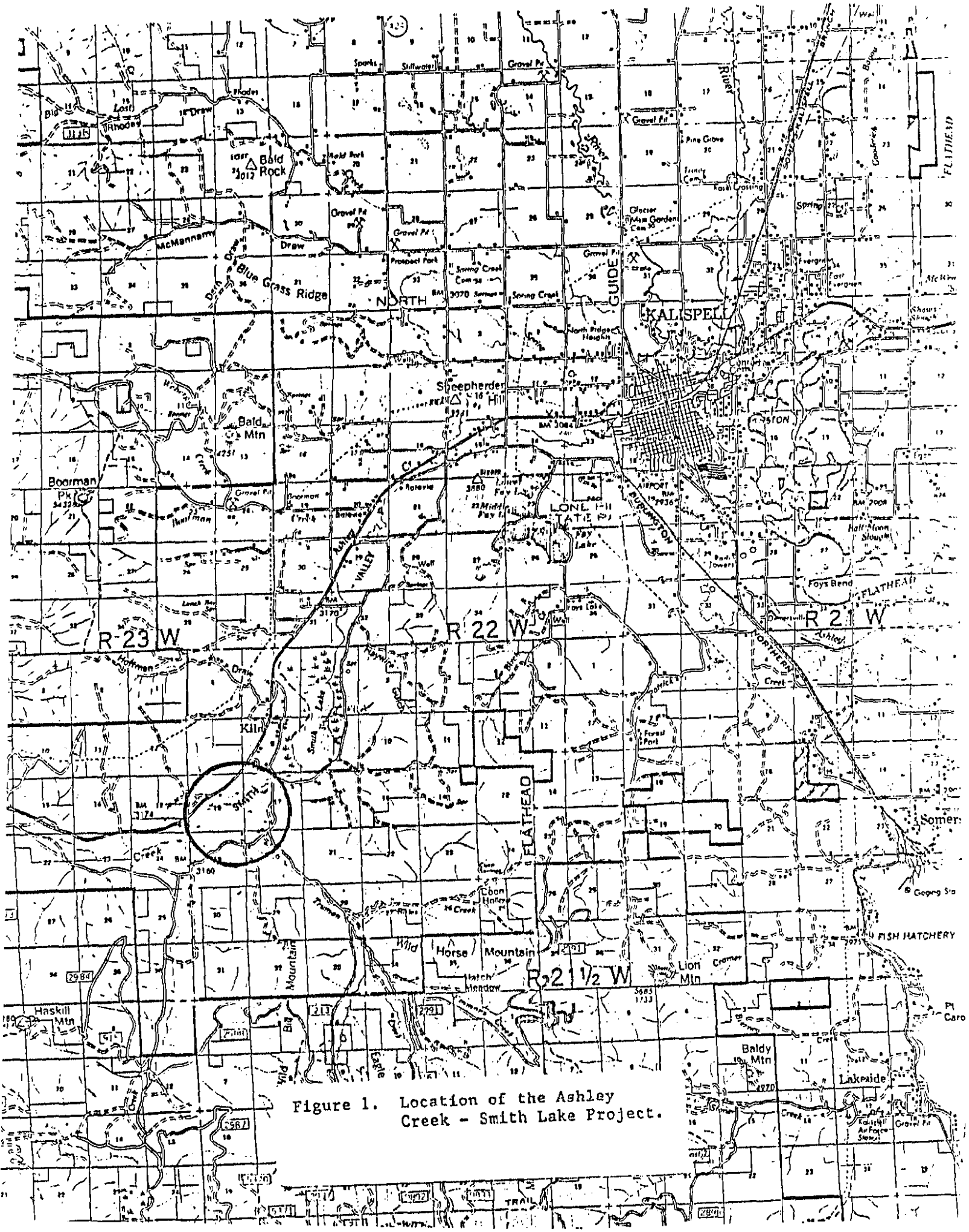


Figure 1. Location of the Ashley Creek - Smith Lake Project.

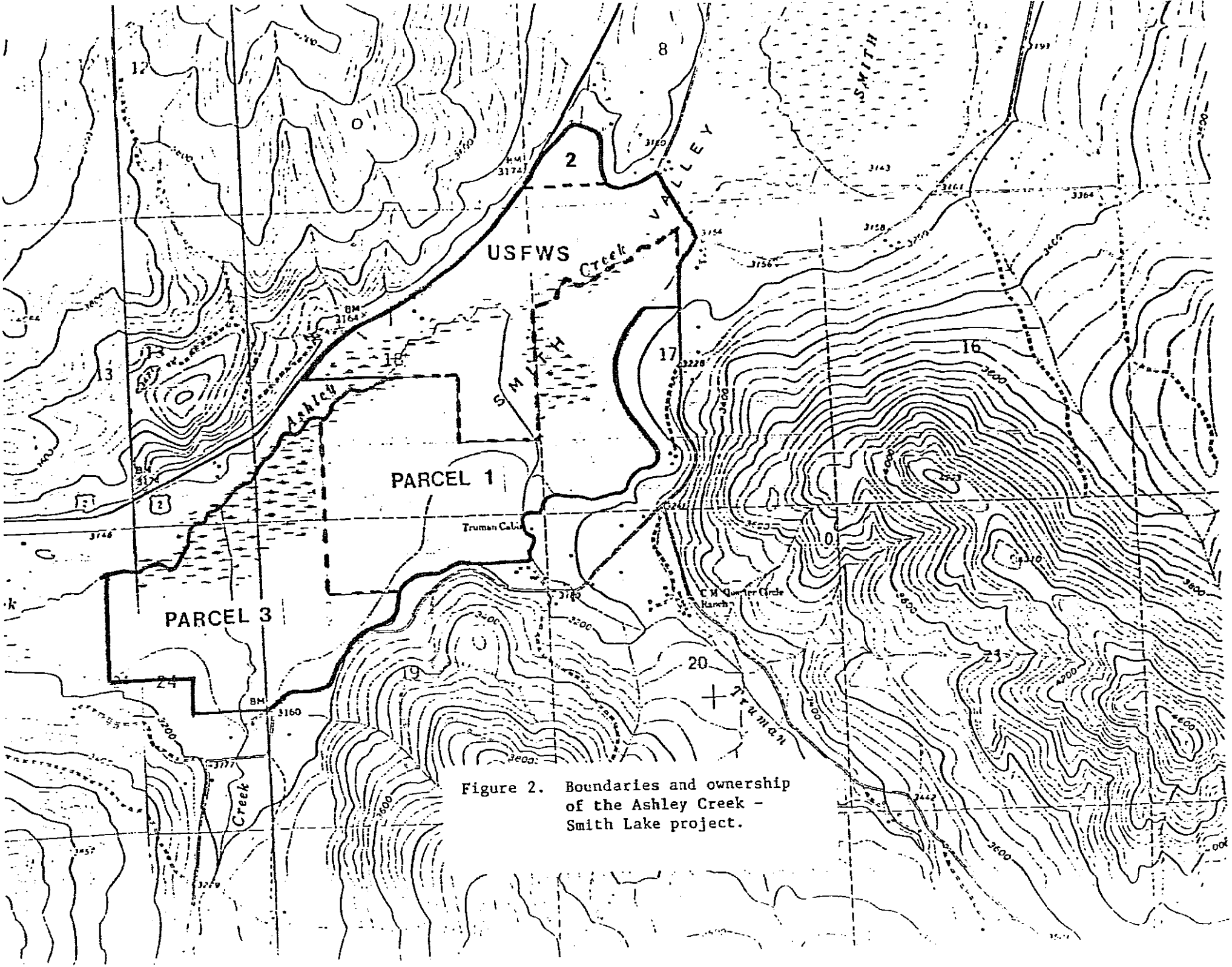


Figure 2. Boundaries and ownership of the Ashley Creek - Smith Lake project.

PROJECT PROPOSAL

The primary goal of this project is to create approximately 470 acres of wetland habitat. This will require fee title acquisition of three parcels of land (approx. 630 acres) in addition to development of 240 acres of the federally owned Waterfowl Production area. Water rights on both Truman and Mount Creeks will be purchased with the land parcels.

Project Area Summary:

Fee Title Acquisition	
Parcel 1 A. Hanson	400 acres
Parcel 2 R. Hock	30 acres
Parcel 3 J. Hyrup	200 acres
Subtotal	630 acres
Enhancement only	
Parcel 4 USFWS	240 acres
Total	870 acres

A preliminary proposal for wetland enhancement has been developed by Ducks Unlimited (Appendix A). Four ponds will be created by construction of dikes on the meadows adjacent to Ashley Creek. Within the ponds, five one acre islands will be developed. Water from both Truman and Mount creeks will fill the ponds during peak spring flows and other seasons as available. Diversion structures will be necessary in both creeks.

BIOLOGICAL BENEFITS

Waterfowl Production - Completion of this project is expected to create approximately 470 acres of wetlands and 12 miles of shoreline habitat and result in increased numbers of' duck produced. Waterfowl species expected to benefit include mallards, gadwalls, redheads, and teal.

Production figures were developed by averaging figures used by Ducks Unlimited and USFWS biologists. For breeding pair habitat potential, I estimated 40 pairs per shoreline mile. Total shoreline miles were calculated from estimates of pond size, island circumference and the length of Ashley Creek flowing through the project area:

	Acres Created	Shoreline
Pond "A"	65 acres	9,240 ft
Pond "B"	65 acres	9,240 ft
Pond "C"	275 acres	17,820 ft
Pond "D"	65 acres	9,240 ft
Ashley Cr		15,000 ft
Islands	5 acres	3,700 ft
	475 acres	64,240 ft or 12 miles

Thus the breeding pair habitat potential for the project area is:

40 pair/mi X 12 miles = 480 pairs

Nesting habitat will be provided on the islands, the riparian shrub zone, and the emergent vegetation fringe. Additional nesting habitat may be provided by level ditching within the wetlands. Nesting success estimates are influenced by different rates in different habitats. Success rates are generally higher on islands because of lower mammalian predation losses. Nesting success on other areas are likely to be significantly less unless intensive predator control is implemented. A realistic hen nest success rate of 60 percent is estimated as a compromise between the high rates on islands (60-702) and the low rates on uplands (20-352). I used an average brood size of 5.2 ducklings based on 1988 estimates from the Nine Pipes National Wildlife Refuge:

480 pairs X 60% = 280 nests

x 5.2 ave. brood size

1,498 ducklings produced

To develop an estimate of waterfowl production for a ten year period, I assumed that most years would be productive since managers will control water levels. A conservative estimate would be that the ponds would be productive for 8.5 years out of 10. Water level manipulation may be necessary during some nesting seasons for pond vegetation rejuvenation. Thus an overall production estimate for a ten year period would be:

8.5 years X 1,498 ducklings = 12,733 ducklings produced.

Other species benefits - The area currently supports numerous nongame species including raptors, passerine birds, and microtine rodents. Since much of the riparian shrub community associated with the streams will not be disturbed, we assume that many of the species associated with this community will remain. .Species dependent upon the grassland-hay field community, such as the microtine rodents, are likely to be replaced by species associated with wetlands. Numerous shorebirds and aquatic furbearers are expected to increase.

MANAGEMENT RESPONSIBILITIES/COOPERATIVE EFFORTS

This project will be ultimately managed by the USFWS refuge division as a Waterfowl Production Area. They have agreed to assume all future operation and management costs. They do not, however, have the funds available to complete the necessary development of the site.

Ducks Unlimited staff have reviewed the project and responded favorably (see Appendix A). Formal commitment by this organization is dependent upon available funds, biological review, and completion of steps necessary to acquire the property and water rights.

ESTIMATED COSTS

No comparable sales were found for the immediate area. The project area is not considered good farmland because the water table is too high. Flathead Valley agricultural land values for good irrigated soils have been estimated at $1,400 per acre. One landowner within the project area has asked $1,000 per acre for his 445 acre property. I suspect that $1,000 per acre would be a high estimate for a large land purchase but possibly reasonable Eor a small acreage purchase: therefore, I estimate:

Acquisition Costs (BPA)-
630 acres at $l,OOO/acre = $630,000

Development costs were estimated by figures supplied by Ducks Unlimited (see Appendix A). I took a mid-point figure from their estimations for dike construction for four ponds:

Development Costs (Ducks Unlimited)-

Pond "C" -	$215,000
Pond "B" -	$ 85,000
Fond "D" -	132,000
Pond "A" -	85,000 (estimated)
Islands -	95,000
Total	$612,000

PROJECT COMPLETION NEEDS/ISSUES

Several permits will be required to complete this project including:

1) 404 Permit - 4 to 6 months time frame

2) Stream Protection Act -administered by MDFWP, 30 days

3) Turbidity Variance - State Water Quality Bureau, 15 - 30 days

4) Floodplain Development Permit - Flathead Regional Development Office, 15 - 30 days

5) Environmental Assessment - USFWS or BPA, 4 to 6 months

6) Water rights transfer and use change

APPENDIX A

DUCKS UNLIMITED CORRESPONDENCE

Smith Lake file

DUCKS UNLIMITED INC.

RECEIVED
JUL 28 1988
DEPT. OF F.W.P.
REGION ONE

DUCKS UNLIMITED, INC.
GREAT PLAINS REGIONAL OFFICE
6115 East Main Avenue
Bismarck, North Dakota, 58501
(701) 258-5599

July 26, 1988

Marilyn Wood
MT Fish, Wildlife & Parks
PO BOX 67
Xalispell, MT 59903

Dear Marilyn:

I have enclosed a sketch of what I think is the apparent wetland development potential for the Ashley Creek area south of Smith Lake. It appears that 350 to 400 acres of wetland could be developed on the areas adjacent to Ashley Creek if water rights, aquisition, and easements could be secured. The water rights would pertain to Ashley Creek but the actual points of diversion would be Truman Creek and Mount Creek. The key items needed to fully develop this area are as you know purchase of the land to develop the wetland basins, securing at least a 1500 acre foot water right and easements or vurchaee of land from the point of diversion to the impoundments:

I have included the development purposal that the U.S. Fish and Wildlife Service submitted a6 part of the overall basin development even though purchase and water rights may not be necessary.

Ducks Unlimited is interested in participating in the wetland development proposal for this area if funds are available and the development potential remains unrestricted.

Good luck in your efforts to secure all of the necessary items to develop the area and if I can be of any further assistance please feel free to call.

Sincerely,

Dennis L. McDonough, R.P.E.
Regional Engineering Supervisor

DLM:ckm

Enclosure

CC: Jon Malcolm

Smith Lake File

DUCKS UNLIMITED INC.

DUCKS UNLIMITED, INC.
GREAT PLAINS REGIONAL OFFICE
6115 East Main Avenue
Bismarck, North Dakota, 58501
(701) 258-5599

August 10, 1988

Ms. Marilyn Wood
MT Fish, Wildlife and Parka
P.O. Box 67
Kalispell, MT 59903

Dear Marilyn:

I was impressed with the number of duck broods in Ashley Creek on the Batavia WPA. This suggests there is on excellent potential for enhancing waterfowl production in the Ashley Creek area south of Smith Lake. If the land you are currently considering for acquisition was in public ownership we would moat definitely continue our evaluation for development.

Enclosed is a copy of a list of cooperative procedures. You will notice there is a variety of hoops to pass through before a project can be contracted and constructed by DU. Although we are anxious to receive a project proposal from you to develop this area, we can not guarantee WC will be able to construct it until our evaluation is complete. When you are considering the acquisition of the Ashley Creek property, please do not consider it with the understanding DU will develop tho area but rather that we will consider developing the area, providing it meets our justification parameters. This is being practical not "negative."

Dennis and I are looking forward to working with you on this in the future.

Sincerely,

Robert Hoffman
Regional Biological Supervisor

RH/dm

DUCKS UNLIMITED INC.

DUCKS UNLIMITED, INC.
GREAT PLAINS REGIONAL OFFICE
6115 East Main Avenue
Bismarck, North Dakota, 58501
(701) 258-5599

November 18, 1988

Marilyn Wood
MT Fish, Wildlife & Parks
PO BOX 67
Kalispell, MT 59903

RE: Ashley Creek

Dear Marilyn:

I have enclosed a revised Ashley Creek wetland development proposal based on an area survey done by the Bureau of Reclamation in 1943. The survey information confirms the development potential of the original D.U. proposal based on USGS quads.

The enclosed proposal identifies four areas that have potential for development into excellent waterfowl habitat. The key to the success of the completion of this development, as you know, is that all water rights be obtained so that the system can function once built and acquisition of land affected by the diversion structures, diversion ditches and land areas that will be innundated. I have listed,the estimated surface area and the estimated storage capacity for each of the proposed areas in an attempt to allow you to better evaluate the existing water rights associated with the property you plan to purchase.

The following is a development priority list for each of the impoundments in the attached proposal based on cost efficiency.

1. Construct Pond "C" and develop 275 surface acres with 825 acre feet of storage. The estimated project cost is between $180,000 and $250,000. The water supply can be from either Truman or Monte Creek or preferably both sources.

2. Construct Pond "B" and develop 65 surface acres with 125 acre feet of storage. The estimated project cost is between $70,000 and $100,000. The water Supply would be from Truman Creek.

3. Construct Pond "D" and develope 65 surface acres with 125 acre feet of storage. The estimated project cost is $110,000 and $154,000. The water supply would be from Monte Creek.

4. Pond "A" does not appear feasible to construct as proposed due to extensive diking required to keep development off of the landowner to the north of Pond "A". Thus exceeding the justification cost for a 65 acre development.

If an additional forty acres was purchased to the north of Pond "A" then approximately 3600 feet of dike construction could be eliminated and this would now malce Pond "A" approximately 100 acres and cost effective. The water supply would be through an inverted siphon under Ashley Creek to Pond "C" which receives water from Truman Creek. The estimated cost of constructing the 100 acre Pond "A" is approximately $100,000 to $140,000. I did not include the 100 acre Pond "A" on the sketch because of comments made at the onsite visit that the landowner to the north may not be a willing seller.

All estimate ranges reflect the development costs for construction by a private corporation, a state agency or a Federal agency to complete each individual site,

Marilyn, I must remind you that Ducks Unlimited is interested in participating in the wetland development proposal for this area if funds are available and the development remains unrestricted.

Again, good luck in your efforts to secure all easements and if I can be of any further assitance please feel free to call.

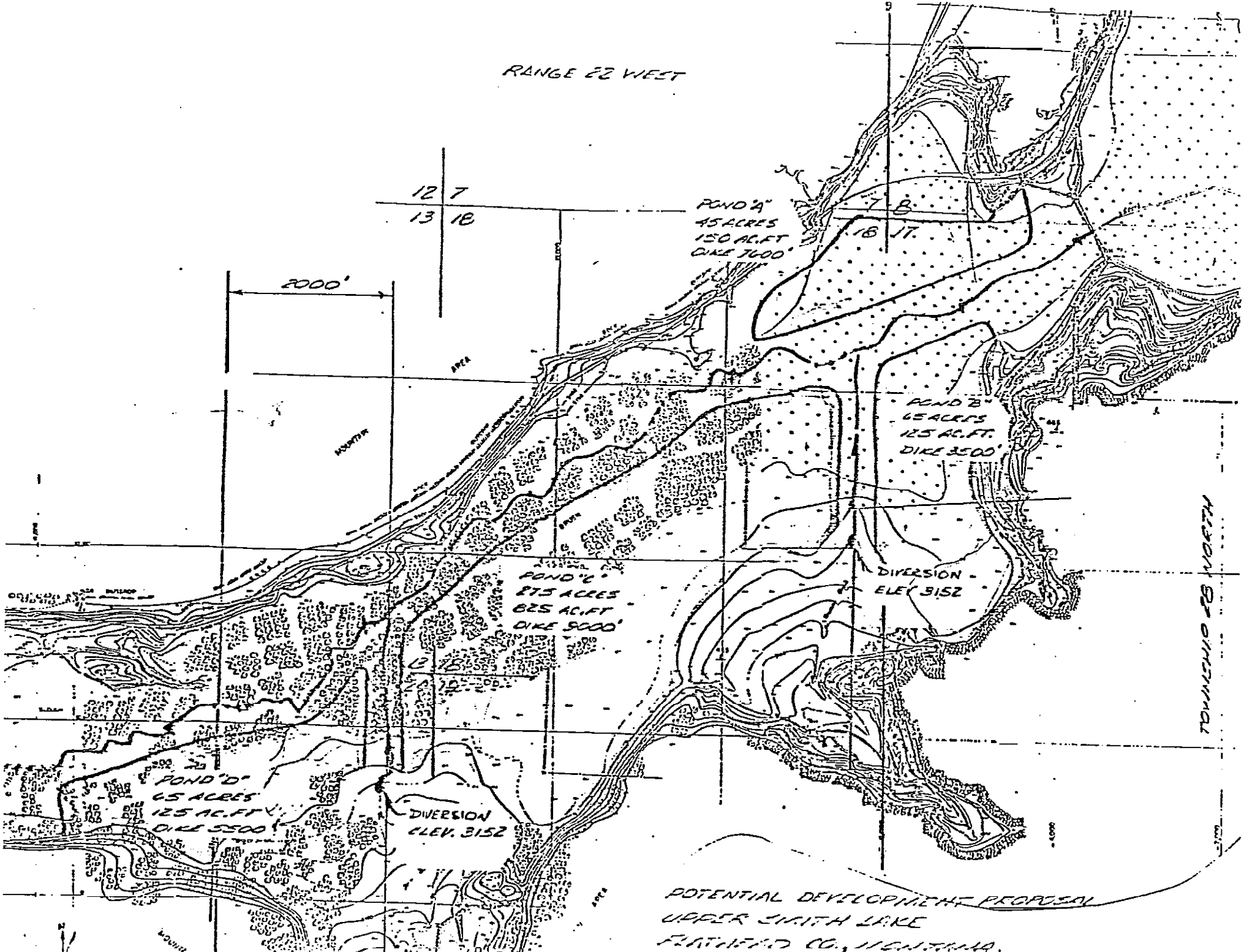
Sincerely,

Dennis L. McDonough, R.P.E.
Regional Engineering Supervisor

DLM:ckm

Enclosure

cc: Ray Washtak


RANGE 22 WEST
12 7
13 18
2000'
POND "A"
45 ACRES
150 AC.FT
DIKE 7600'
7 8
18 17
POND "B"
65 ACRES
125 AC.FT.
DIKE 3500'
POND "C"
275 ACRES
825 AC.FT
DIKE 9000'
DIVERSION
ELEV. 3152
POND "D"
65 ACRES
125 AC.FT.
DIKE 3500'
DIVERSION
ELEV. 3152
MISSOURI RIVER DRAINAGE
POTENTIAL DEVELOPMENT PROPOSAL
UPPER SMITH LAKE
FLATHEAD CO., MONTANA.

APPENDIX C

Montana Department Fish, Wildlife and Parks
letter of support for the
Ashley Creek project

Montana Department of Fish, Wildlife & Parks

1420 East Sixth Ave
Helena, MT 59620
September 1, 1989

Mr. John Palensky
Division of Fish and Wildlife
Bonneville Power Administration
BOX 3621
Portland, OR 97208

Dear Mr. Palensky:

I am writing to express my support for acquisition of the Smith Lake Addition Wetland Habitat Acquisition and Development Project.

Converting this subirriqated hay meadow with limited waterfowl values into a productive wetland complex will be an excellent form of mitigation.

Several other aspects of this project make it an attractive mitigation opportunity. This project demonstrates the high deqree of cooperation possible in implementing the wildlife mitigation program. By involvinq Ducks Unlimited and USFWS, the cost to BPA ratepayers can be significantly reduced. Also, it addresses a major regional and National problem - the loss of wetlands. Finally, it complements the onqoinq programs of State and Federal agencies.

MDFWP has enjoyed a long and productive relationship with BPA and we look forward to assisting you in the successful completion of the Smith Lake Addition Wetland Habitat Acquisition and Development Project.

Sincerely,

K. L. Cool
Director

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cln